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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,735	03/13/2007	Michael Powers	VEC-138-B (RUS0143)	5019
29296 7590 05/06/2010 JULIA CHURCH DIERKER DIERKER & ASSOCIATES, P.C. 3331 W. BIG BEAVER RD. SUITE 109 TROY, MI 48084-2813			EXAMINER ROSATI, BRANDON MICHAEL	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 05/06/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,735

Applicant(s)

POWERS ET AL.

Examiner

BRANDON M. ROSATI

Art Unit

3744

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-12, 14 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12, 14, and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/26/2010 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 10-12, 14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moreau (U.S. Patent No. 6,749,015 B2) in view of Dey et al. (U.S. Pub. No. 2003/0217838).

Regarding claims 10, 14, 18, and 19, Moreau disclose in Figures 1 and 3 all the claimed limitations including a headering arrangement comprising a heat exchanger body part (i.e. middle of device), a tank (i.e. fluid chamber) (28), a plurality of tubes (10), a header pan (i.e. manifold) (16) disposed at the end of the tubes, which includes a plurality of slots, is flat, and defines a plurality of collars (20), each of the collars forming a ferrule which surrounds and is in contact with a respective tube, a tank foot (i.e. contour) (30), the plurality of tubes passes through the slots and maintain the tank foot in place (along with the header and manifold plate), the collars being inverted in relation to a line of extension of the tubes, the line of extension defined by a vector that extends away from the respective plurality of tubes of an end segment of the

respective one of the plurality of tubes (Column 4, lines 1-63). Moreau does not disclose an essentially flat gasket. However, Dey et al. disclose in Figures 4, 6b and 6c, a heat exchanger which has a core comprised of heat exchanger tubes, a header and a gasket (46). Hence, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the teachings of Moreau with the essentially flat gasket of Dey et al. because adding the gasket would help to ensure a tight fluidly sealed system which would reduce the risk of leakage and thus increase the efficiency of the device and thus increase the overall amount of potential heat transfer. It is noted that the phrases "for a heat exchanger" and "for use in automotive application" are statements of intended use and the device is capable of performing the functions.

Regarding claim 11, the combined teachings of Moreau and Dey et al. disclose a tube having a length that appears to be of less than or about twice the thickness of the header plus tank foot width of the header, but fails to disclose the exact dimensions of the tube or header. Although the exact dimensions are not given, it is obvious from Figure 1 of Moreau and Figure 2 of Dey et al. that tube has a length of less than or about twice the thickness of the header plus tank foot width of the header. Furthermore, it is an obvious mechanical expedient to one of ordinary skill in the art to utilize a tube having a length of less than or about twice the thickness of the header plus tank foot width of the header because doing so will ensure a properly functioning tube as well as minimizes the amount of material needed to be used to maximize cost.

Regarding claims 12 and 17, the combined teachings of Moreau and Dey et al. disclose the header pan comprising at least one flat medallion. It is noted that since the header pan of Moreau is flat, it therefore has a flat medallion. Furthermore, because the Examiner is examining

the final product (i.e. the header pan), the steps utilized to make the final product, such as pressing, which is referred to as a medallion are given limited patentable weight in an apparatus claim.

Response to Arguments

4. Applicant's arguments, see page 5 and 6, filed 3/24/2010, with respect to the 112 second paragraph rejection have been fully considered and are persuasive. The rejection of the claims 10-12 and 14 have been withdrawn.
5. Applicant's arguments with respect to claims 10-12, 14, and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Velzy et al. (U.S. Patent No. 7,673,672 B2) discusses a non-brazed insert for a heat exchanger.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON M. ROSATI whose telephone number is (571)270-3536. The examiner can normally be reached on Monday-Friday 8:00am- 4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler or Frantz Jules can be reached on (571) 272-4834 or (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BMR
5/4/2010

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit
3744